

## REMARKS

1  
2 Herein, the "Action" or "Office Action" refers to the Office Action dated  
3 11/30/2005.

4 Applicant respectfully requests reconsideration and allowance of all of the  
5 claims of the application. Claims 1-42 and 45-46 are presently pending. Claims  
6 amended herein are 10 and 29. Claims withdrawn or cancelled herein are 43-44.  
7 New claims added herein are none.

## Election/Restriction

8  
9 In the Action, the Office states:

### *Election/Restrictions*

10  
11 3. Restriction to one of the following inventions is required under 35 U.S.C. 121:  
12 I. Claims 1-42,45-46, drawn to a kernel emulator comprising translating instructions,  
13 addresses, and arguments from non-native to native code, classified in class 703, subclass  
14 23.  
15 II. Claims 43-44, drawn to a kernel emulator comprising a target platform determiner, an  
instruction type detector, a translator selector, classified in class 703, subclass 23.  
16 4. Inventions I and II are related as subcombinations disclosed as usable together in a single  
combination. The subcombinations are distinct from each other if they are shown to be separately usable.  
17 In the instant case, invention II has separate utility such as determining the target platform, determining  
the type of non-native instructions, and selecting a translator capable of translating the instructions. See  
18 MPEP § 806.05(d).  
19 5. Because these inventions are distinct for the reasons given above and have acquired a separate  
status in the art because of their recognized divergent subject matter, restriction for examination purposes  
as indicated is proper.  
20 6. During a telephone conversation with Mr. Kasey Christie on 11/11/04 a provisional election was  
made without traverse to prosecute the invention of Group I, Claims 1-42, 45-46. Affirmation of this  
21 election must be made by applicant in replying to this Office action. Claims 43-44 withdrawn from  
22 further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

23  
24 Applicant confirms the election of claims 1-42 and 45-46. Accordingly,  
25 Applicant withdraws claims 43 and 44 from consideration here.

421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509-324-9256  
F: 509-323-8979  
www.leehayes.com

**lee & hayes**

1  
2 **Informalities**

3 **Specification**

4 The Office indicates that lines 16 of page 23 should read "within" instead  
5 of "with in." Applicant amends herein to correct accordingly.

6 **Claim Objections**

7 The Office asks for small informalities to claims 10 and 42 to be corrected.  
8 Applicant amends herein to correct accordingly.

9 **Claim Interpretation**

10 The Office indicates:

11 *Claim Interpretation*

12 Claims 9 and 29, recite a "shared-memory manager configured to synchronize a native shared  
13 data structure with a non-native shared data structure". It was unclear as to what "synchronize" meant.  
14 The specification states, "The address conversion (between native and non-native addressing formats) is  
15 done during synchronization" (page 23, lines 13-15). From this statement in the specification, it was  
16 determined that synchronization is the address conversion of a non-native address to a native address.

17 Applicant submits that "synchronize" as used in these claims (claims 9 and  
18 29) does indeed include address conversion. However, synchronization is not  
19 limited to just address conversion. It may include other data format conversions.

20 The two data structures are "synchronized" when the data in one of the data  
21 structures is accessible in the other data structure. This includes, for example,  
22 address conversion, instruction conversion, argument-format conversion, word-  
23 size conversion, and other conversions described in the Application and other  
24 similar conversions consistent with a native to/from non-native conversion.

421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509-324-9256  
F: 509-323-8979  
www.leehayes.com

**lee & hayes**

## Substantive Claim Rejections

### Claim Rejections under §§ 102 and 103

The Office rejects all of the pending claims (1-42 and 45-46) under §102 and/or §103. For the reasons set forth below, the Office has not shown that one or more of the cited references anticipate the rejected claims. For the reasons set forth below, the Office has not made a *prima facia* case showing that the rejected claims are obvious (under §103). Accordingly, Applicant respectfully requests that the rejections be withdrawn and the case be passed along to issuance.

The Office's rejections are based upon the following references:

- **Scalzi:** *Scalzi et al.*, US Patent No. 5,560,013 (issued 9/24/1996);
- **Franz:** Michael Franz, "Emulating an Operating System on Top of Another" Software – Practice and Experience. Vol. 23, No. 6, June 1993, pp. 677-692);
- **Duvall:** *Duvall et al.*, US Patent No. 4,742,447 (issued 5/3/1988);
- **McCoy:** *McCoy et al.*, US Patent No. 5,036,484 (issued 7/30/1991).

### Overview of the Application

The Application describes a technology facilitating the operation of non-native program modules within a native computing platform. More particularly, it describes a technology facilitating the interoperability of native and non-native program modules within a native computing platform.

Specifically, this technology involves an emulation of the kernel of the non-native operating system. Instead of interacting with the native kernel of the native computing platform, the non-native program modules interact with a non-native

421 West Riverside, Suite 500  
Spokane, WA 89201  
P: 509.324.9256  
F: 509.323.8979  
www.leehayes.com

**lee & hayes**

1 kernel emulator. This emulator handles the necessary conversions and translations.  
2 With this non-native kernel emulation, native and non-native program modules are  
3 interoperable. Except for the kernel emulator, none of the program module (native  
4 or non-native) and none of the other portions of the native computing platform are  
5 aware of the emulation. The computing environment and other program modules  
6 appear to be non-native to the non-native program modules. Likewise, the non-  
7 native program modules appear to be native to the computing environment and the  
8 native program modules.

9

10 **Cited References**

11 The Office cites **Scalzi** as its reference for is anticipation-based rejections  
12 and the primary references in many of its obviousness-based rejections. The  
13 Office cites **Duvall** as its primary reference for some of its obviousness rejections  
14 and a secondary reference in other obviousness-based rejections. In addition, the  
15 Office cites **Franz** and **McCoy** as secondary references in some of its  
16 obviousness-based rejections.

17

18 **Scalzi**

19 **Scalzi** describes a method of utilizing large virtual addressing in a target  
20 computer to implement an instruction set translator (IST) for dynamically  
21 translating the machine language instructions of an alien source computer into a  
22 set of functionally equivalent target computer machine language instructions,  
23 providing in the target machine, an execution environment for source machine  
24 operating systems, application subsystems, and applications.

421 West Riverfront, Suite 500  
Spokane, WA 99201  
P: 509.324-9256  
F: 509.323-8979  
www.leehayes.com

**lee & hayes**

1 The target system provides a unique pointer table in target virtual address  
 2 space that connects each source program instruction in the multiple source virtual  
 3 address spaces to a target instruction translation which emulates the function of  
 4 that source instruction in the target system. The target system stores the translated  
 5 executable source programs by actually storing only one copy of any source  
 6 program, regardless of the number of source address spaces in which the source  
 7 program exists.

8 The target system manages dynamic changes in the source machine storage,  
 9 accommodating the nature of a preemptive, multitasking source operating system.  
 10 The target system preserves the security and data integrity for the source programs  
 11 on a par with their security and data integrity obtainable when executing in source  
 12 processors (i.e. having the source architecture as their native architecture). The  
 13 target computer execution maintains source-architected logical separations  
 14 between programs and data executing in different source address spaces--without a  
 15 need for the target system to be aware of the source virtual address spaces.

16  
 17 Duvall

18 Duvall describes a method for accessing information in a page segmented  
 19 virtual memory data processing system in which virtual machines running UNIX  
 20 type operating systems are concurrently established, and in which a memory  
 21 manager controls the transfer of information between primary and secondary  
 22 storage devices in response to the occurrence of page faults. The method  
 23 establishes a plurality of data structures in a dynamic manner in response to a  
 24 Supervisor call to "map" a file.

1        The mapping process assigns a new segment of virtual memory to the  
 2 mapped file and correlates, in one data structure, the virtual address of each page  
 3 of data in the new segment to a disk file address where that page is actually stored.  
 4        A UNIX system call by an application program for a specific virtual page is  
 5 handled by the page fault handler, and not the UNIX kernel, since the application  
 6 can supply the real address of the page on the disk file from the data structure that  
 7 was created by the mapped page range Supervisor call. Simple load and store type  
 8 of instructions are employed for the data transfer, which avoids much of the  
 9 overhead that normally accompanies conventional UNIX read and write system  
 10 calls to the storage subsystem.

11

12

13 Franz

14        As its name implies, **Franz** discusses the emulation of one operating  
 15 system on top of another operating system. **Franz** describes the design of an  
 16 operating-system emulator. This software interface provides the services of one  
 17 operating system (e.g., Oberon) on a machine running a different operating system  
 18 (e.g., Macintosh), by mapping the functions of the first onto equivalent calls to the  
 19 second.

20

21

McCoy

22        **McCoy** describes a system for emulating the operation of a terminal  
 23 connected to a host computing system while retaining the ability to utilize personal  
 24 computer application programs resident in the personal computer by utilizing a  
 25

421 West Rivergate, Suite 500  
 Spokane, WA 99201  
 P: 509.324-9256  
 F: 509.323-8979  
[www.leehayes.com](http://www.leehayes.com)

**lee & hayes**  
 ATTORNEYS AT LAW  
 (509) 323-8979

1 personal computer/host terminal emulation program which conducts an analysis of  
2 host data and keystrokes to identify personal computer commands and calls the  
3 appropriate resident application program in response to such commands.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509.324.8256  
F: 509.323.8979  
www.leehayes.com

**lee & hayes**

Serial No.: 09847,535  
Atty Docket No.: MS1-665us  
RESPONSE TO OFFICE ACTION DATED 11/30/2004

20

0408051505 01MS1-01665us1MS1-665us 7.01.doc  
atty: Casey C. Christie

## Anticipation Rejections

### Anticipation Rejections Based upon Scalzi

The Office rejects claims 1, 3-6, 9-13, 15-17, 19-28, 34, 37-40, 42, and 45-46 under USC § 102(b) as being anticipated by Scalzi. Applicant respectfully traverses the rejections of these claims. Based on the reasons given below, Applicant asks the Office to withdraw its rejections of these claims.

Claims 1, 3, 4, 13, 15, 16, 34, 40, and 45

In the Action, the Office provides the following reasoning for rejecting these claims:

14. Claims 1,3-6,9-13,15-17,19-28, 34,37-40,42,45-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Scalzi et al (U.S. Patent Number 5,560,013), herein referred to as Scalzi.

15. As to Claims 1,3,4,13,15,16,34, 40 and 45, Scalzi teaches: a kernel emulator for non-native program modules, the emulator comprising: an interceptor configured to intercept kernel calls from non-native program modules (Figure 1, element 102 and description); a call-converter configured to convert non-native kernel calls intercepted by the interceptor into native kernel calls (Figure 1, element 103 and description); wherein the call-converter comprises: an instruction-translator configured to translate non-native CPU instructions into native CPU instructions (Figure 1, element 103 and description); an address-translator configured to translate addresses from non-native length into native length (Figure 3 and description, column 21, lines 42-49).

Serial No.: 09/847,535  
Atty Docket No.: MS1-665us  
RESPONSE TO OFFICE ACTION DATED 11/30/2004

21

0408051508 G:1MS1-01005sus1MS1-665sus m.01.doc  
atty: Kasoy C. Christo

1 All of these rejected claims recite kernel emulation<sup>1</sup> and operating on or in  
 2 response to kernel calls. Scalzi never discloses a call to a kernel of an operating  
 3 system. Furthermore, Scalzi never discloses emulating a kernel of an operating  
 4 system. Further still, Scalzi never even mentions a kernel of an operating system.

5 Moreover, many of these claims<sup>2</sup> recite an interception of a kernel call.  
 6 Since Scalzi never mentions kernel calls, it is logical that it never discloses  
 7 intercepting such calls.

8 While Scalzi does appear to disclose instructions conversion, it fails to  
 9 disclose kernel emulation, kernel calls, and interception of such kernel calls. As  
 10 shown above, Scalzi does not disclose all of the claimed elements and features of  
 11 these claims. Accordingly, Applicant asks the Office to withdraw its rejection of  
 12 these claims.

13

14 **Claims 2-13**

15 These claims ultimately depend upon independent claim 1. As discussed  
 16 above, claim 1 is allowable.

17 In addition to its own merits, each of these dependent claims is allowable  
 18 for the same reasons that its base claim is allowable. Applicant submits that the  
 19 Office withdraw the rejection of each of these dependent claims because its base  
 20 claim is allowable.

21

22

23

24 <sup>1</sup> E.g., "kernel emulator" in claims 1, 40 and 45, "emulating a kernel" in claim 13, and "emulating  
 a non-native kernel" in claim 34

25 <sup>2</sup> E.g., independent claims 1, 13, and 45

Claims 14-28

1 These claims ultimately depend upon independent claim 13. As discussed  
 2 above, claim 13 is allowable.

3 In addition to its own merits, each of these dependent claims is allowable  
 4 for the same reasons that its base claim is allowable. Applicant submits that the  
 5 Office withdraw the rejection of each of these dependent claims because its base  
 6 claim is allowable.

Claims 35-39

10 These claims ultimately depend upon independent claim 34. As discussed  
 11 above, claim 34 is allowable.

12 In addition to its own merits, each of these dependent claims is allowable  
 13 for the same reasons that its base claim is allowable. Applicant submits that the  
 14 Office withdraw the rejection of each of these dependent claims because its base  
 15 claim is allowable.

Claims 41 and 42

17 These claims ultimately depend upon independent claim 40. As discussed  
 18 above, claim 40 is allowable.

20 In addition to its own merits, each of these dependent claims is allowable  
 21 for the same reasons that its base claim is allowable. Applicant submits that the  
 22 Office withdraw the rejection of each of these dependent claims because its base  
 23 claim is allowable.

421 West Riverside, Suite 500  
 Spokane, WA 99201  
 P: 509.324.9256  
 F: 509.323.8873  
 www.leehayes.com

 lee & hayes

Claim 46

1           This claim ultimately depends upon independent claim 45. As discussed  
 2 above, claim 45 is allowable.

3           In addition to its own merits, this dependent claim is allowable for the same  
 4 reasons that its base claim is allowable. Applicant submits that the Office  
 5 withdraw the rejection of this dependent claim because its base claim is allowable.

Obviousness RejectionsLack of *Prima Facie* Case of Obviousness (MPEP § 2142)

11           Applicant disagrees with the Office's obviousness rejections. Arguments  
 12 presented herein point to various aspects of the record to demonstrate that all of  
 13 the criteria set forth for making a *prima facie* case have not been met.

Based upon Scalzi and Franz

16           The Office rejects claims 2 and 14 under USC § 103(a) as being  
 17 unpatentable over Scalzi in view of Franz. Applicant respectfully traverses the  
 18 rejection of this claim. Applicant asks the Office to withdraw its rejection of this  
 19 claim.

Claims 2 and 14

22           Claim 2 ultimately depends upon independent claim 1. As discussed  
 23 above, claim 1 is allowable. Claim 14 ultimately depends upon independent claim  
 24 13. As discussed above, claim 13 is allowable.

1  
2 In addition to its own merits, each of these dependent claims is allowable  
3 for the same reasons that its base claim is allowable. Applicant submits that the  
4 Office withdraw the rejection of each of these dependent claims because its base  
5 claim is allowable.

6  
7 **Based upon Scalzi and Duvall**

8 The Office rejects claims 7, 8, 18, 35, and 41 under USC § 103(a) as being  
9 unpatentable over Scalzi in view of Duvall. Applicant respectfully traverses the  
10 rejection of this claim. Applicant asks the Office to withdraw its rejection of this  
11 claim.

12  
13 **Claims 7, 8, 18, 35, and 41**

14 Claims 7 and 8 ultimately depend upon independent claim 1. As discussed  
15 above, claim 1 is allowable. Claim 18 ultimately depends upon independent claim  
16 13. As discussed above, claim 13 is allowable. Claim 35 ultimately depends upon  
17 independent claim 34. As discussed above, claim 34 is allowable. Claim 41  
18 ultimately depends upon independent claim 40. As discussed above, claim 40 is  
19 allowable.

20 In addition to its own merits, each of these dependent claims is allowable  
21 for the same reasons that its base claim is allowable. Applicant submits that the  
22 Office withdraw the rejection of each of these dependent claims because its base  
23 claim is allowable.

1      **Based upon Duvall and McCoy**

2      The Office rejects claims 29-33 under USC § 103(a) as being unpatentable  
 3      over Duvall in view of McCoy. Applicant respectfully traverses the rejection of  
 4      this claim. Applicant asks the Office to withdraw its rejection of these claims.

5      **Claim 29**

6      In the Action, the Office provides the following reasoning for rejecting this  
 7      claim:

8      41.     Claims 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duvall and further  
 9      in view of McCoy et al (U.S. Patent Number 5,036,484), herein referred to as McCoy.

10     42.     As to Claim 29, Duvall teaches: a method comprising: if the initiating program is non-native:  
 11     limiting available memory to a range that is addressable by the non-native program module (column 4,  
 12     lines 43-46, column 6, lines 25-29, column 9, lines 20-25); establishing non-native a version of a shared  
 13     memory data structure that may be synchronized with a native version of the same shared memory data  
 14     structure (column 5, lines 45-51, column 6, lines 25-29).

15     43.     Duvall further teaches the data in a segment of virtual memory is created as a result of an  
 16     application program being run (column 5, lines 52-55). While this implies that must be some  
 17     determination as to whether a program is native or non-native allowing for the segment in virtual memory  
 18     to be created, Duvall does not expressly teach determining whether an initiating program module is a  
 19     native or non-native.

20     44.     McCoy teaches determining whether an initiating program module is a native or non-native  
 21     (Figure 3a, element 36a, column 5, lines 40-48) in a system that emulates a host program in a PC  
 22     environment and translates host data to PC format by the emulation program (column 5, lines 28-31),  
 23     allowing the system to know whether to perform a function of the native system or perform a function of  
 24     the non-native system which includes the translation of code (Figure 3a, element 31a and column 5,  
 25     lines 40-48) since in the emulation systems of the prior art, when operating in emulation mode, the native  
 26     system is incapable of performing functions other than those of the terminal which is being emulated.

421 West Riverside, Suite 500  
 Spokane, WA 99201  
 P: 509.324.9256  
 F: 509.323.8979  
 www.leehayes.com

**lee&hayes**  
 律師事務所  
 421 West Riverside, Suite 500  
 Spokane, WA 99201  
 P: 509.324.9256  
 F: 509.323.8979  
 www.leehayes.com

1  
2 Therefore, the functions of the personal computer are not available in the emulation mode (column 1,  
3 lines 32-39).

4 45. It would have been obvious to one of ordinary skill in the art at the time the invention was made  
5 to modify the determination of whether a program module is native or non-native as taught in Duvall with  
6 the method of determining whether a program module is native or non-native as taught by McCoy since  
7 McCoy teaches that typically, when operating in emulation mode, the native system is incapable of  
8 performing functions other than those of the terminal which is being emulated (column 1, lines 32-39)  
9 and his method provides a way of switching between running native and non-native functions. Further,  
10 both Duvall and McCoy are directed to the emulation of a non-native program module in a native  
11 environment and translating the non-native data into native data.

12  
13 Duvall discloses virtual machine (VM) technology, which the Applicant  
14 discusses in its Background section on p. 7 and 8 of the Application. Duvall  
15 discloses a new addressing scheme for VMs to use to read/write from/to a "file"  
16 (rather than memory). Duvall does not disclose "limiting available memory to a  
17 range that is addressable." Rather, it discloses a re-definition and re-arrangement  
18 of the meaning of the bits in the existing and unmodified addressable range.

19 To make it clear that the "limiting" has the effect of reducing the range of  
20 available memory that a non-native program module may address, Applicant  
21 amends herein this claim in this manner:

22  
23 limiting available memory to a range that is addressable by the non-native  
program module, that range of addressable memory being less than the available  
memory

24  
25 Applicant submits that this amendment does not narrow the claim. Rather  
is clarifies its original meaning.

421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509.324.9256  
F: 509.323.8979  
www.leehayes.com

lee & hayes

Moreover, the Office has not identified where **Duvall** discloses "non-native" program modules. Indeed, since **Duvall** discloses a VM model, then all program modules operating under a particular VM are presumptively native to that VM. If not, then an emulator would be necessary, but **Duvall** does not disclose an emulator.

While **McCoy** does disclose a nominal "emulator," it is not an emulation related to program modules being considered native or non-native. Rather, **McCoy** discloses a terminal emulation—that is, emulation of the operation of a "dumb" terminal connected to a host computer (e.g., mainframe computer).

The Office indicates the **McCoy** discloses an initiation of a program module based upon a determination of whether a program is native or non-native. It points to col. 5, lines 40-48, Fig. 3a, element 36a, which is reproduced here:

Keystrokes on the keyboard/display 35a are examined by the keystroke interpretation portion 36a of the emulation program to determine whether a PC or a host function is required. Program block 36a is responsive to the selected mode. In the PC mode, the keystrokes are handled by block 37a as normal keyboard commands or data. In the emulation mode, the keystrokes representing the host keys are passed to the host processor via the host emulator 31a.

421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509.324.9256  
F: 509.323.8979  
www.leehayes.com

**lee & hayes**

1        However, this particular cited portion (and McCoy as a whole) are focused  
 2        on determining from whence input (e.g., keystrokes) is received and processing  
 3        them accordingly. The first sentence of the passage above says, "Keystrokes...are  
 4        examined...to determine whether a PC or a host function is required." Applicant  
 5        respectfully submits that this is not equivalent to "determining whether an  
 6        initiating program module is a native or non-native."

7        Indeed, Applicant submits that all of McCoy's program modules (including  
 8        the McCoy's terminal emulation program itself) are presumptively native. If they  
 9        were non-native, then they would not function on the PC absent an operating-  
 10       system based emulation program. However, McCoy does not disclose a such an  
 11       emulation program.

12       For the reasons given above, Applicant submits the combination of **Duvall**  
 13       and **McCoy** fail to disclose all of the elements and features of this claim.  
 14       Accordingly, Applicant asks the Office to withdraw its rejection of this claim.

15

16 **No Motivation to Combine References**

17       Furthermore, Applicant asserts that there is no motivation to combine the  
 18       teachings of **Duvall** and the teachings of **McCoy**.

19       As discussed above, **Duvall** describes an addressing scheme for accessing  
 20       files in a VM environment. However, **McCoy** describes "dumb" terminal  
 21       emulation on a PC.

22       Applicant submits that there is no suggestion, teaching, or reason given by  
 23       one reference that would motivate one of ordinary skill in the art at the time of the  
 24       invention (hereinafter, "OOSA") to combine it with the teachings of the other

421 West Riverside, Suite 508  
 Spokane, WA 99201  
 P: 509.324.9256  
 F: 509.323.8979  
 www.leehayes.com

**lee & hayes**

1 reference. More importantly, Applicant submits that the Office has not provided  
 2 any objective evidence showing why OOSA would be motivated to combine the  
 3 teachings of the two references.

4 Duvall says nothing that would motivate OOSA to look towards Chipman  
 5 and combine their teachings. Likewise, McCoy says nothing that would motivate  
 6 OOSA to look towards Duvall and combine their teachings.

7 Accordingly, Applicant submits that OOSA would not be motivated to  
 8 combine the VM file-access I/O addressing scheme of Duvall with the "dumb"  
 9 terminal emulation of McCoy. Accordingly, Applicant asks the Office to  
 10 withdraw its rejection of this claim.

11

12 Claims 30-33

13 These claims ultimately depend upon independent claim 29. As discussed  
 14 above, claim 29 is allowable.

15 In addition to its own merits, each of these dependent claims is allowable  
 16 for the same reasons that its base claim is allowable. Applicant submits that the  
 17 Office withdraw the rejection of each of these dependent claims because its base  
 18 claim is allowable.

421 West Riverside, Suite 500  
 Spokane, WA 99201  
 P: 509.324.9256  
 F: 509.323.8979  
 www.leehayes.com

**lee & hayes**  
 律所  
 专利  
 诉讼  
 交易  
 企业  
 金融

1      **Dependent Claims**

2      In addition to its own merits, each dependent claim is allowable for the  
3      same reasons that its base claim is allowable. Applicant submits that the Office  
4      withdraw the rejection of each dependent claim where its base claim is allowable.

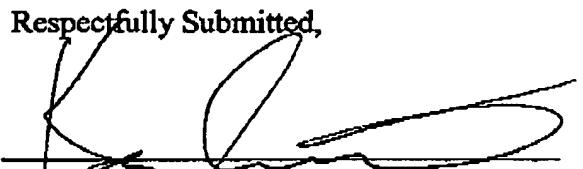
6      **Conclusion**

7      All pending claims are in condition for allowance. Applicant respectfully  
8      requests reconsideration and prompt issuance of the application. If any issues  
9      remain that prevent issuance of this application, the Office is urged to contact the  
10     undersigned attorney before issuing a subsequent Action.

12     Dated: 4-29-05

13     By:

14     Respectfully Submitted,

15       
16     Kasey C. Christie  
17     Reg. No. 40589  
18     (509) 324-9256 x232  
19     [kasey@leehayes.com](mailto:kasey@leehayes.com)  
20     [www.leehayes.com](http://www.leehayes.com)

421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509.324.9256  
F: 509.323.8979  
[www.leehayes.com](http://www.leehayes.com)

**lee&hayes**

Serial No.: 09/847,535  
Atty Docket No.: MS1-665us  
RESPONSE TO OFFICE ACTION DATED 11/30/2004

31

0408051508 G:\MS1-01855.us\MS1-665us\m01.doc

Atty: Kasey C. Christie